# TWG February 27, 2002 Flip Chart Notes

Questions and Concerns

Can we consider 5,000 – 9,000 cfs flows in lieu of steady 8,00 cfs flows for September – December?

Estimate Total Cost Impact on Power of changes in the hydrograph

Would low fluctuations in Fall be as optimal as flat flows?

Is the hydrograph a departure from the ROD, given the daily fluctuations?

If the power economics are not acceptable, will we consider requesting a Fall BHBF?

ROD allows experimentation and that's what allows fluctuations; not Preferred Alternative, but it is the ROD.

Call January – March testing the No Action Alternative.

The only time the ROD allows low steady flows is 8.23 MAF years.

Can this or any hydrograph even be implemented since the AOP process is the mechanism for adjusting monthly volumes and proposing monthly volumes.

Can we test warming hypothesis for October – December when YOY might emerge in mainstem?

Published paper that shows drift out of LCR in May/June.

Running high fluctuating flows to impact population around LCR has a potential negative impact on the whole system.

Could you [ ] removing rainbow trout around the LCR?

Presence of non-native fish everywhere below Lees Ferry is viewed as an ecological negative by this program.

Are the high fluctuating flows "fishable"? Yes, depending on the ramping rates. Also, it poses a safety hazard.

Bring data on Lees Ferry electrofishing to AMWG.

If we lower no-action flows, will we have desired downstream effects?

Is there a problem if we move the No Action flows a month or two?

If you fluctuate from 5,000 - 25,000 cfs, you will kill adult trout, several hundred a day until spawning season ends.

Location of standing pools is in GCES reports.

Concern about falling limb of hydrograph going right into No Action flows won't allow us to test benefit of BHBF.

Advocate a stepped-down hydrograph following BHBF to accomplish progressive reworking that produces an eddy profile that is more stable and friendly to people using the river.

Do we want steady flows on either side of BHBF to collect data?

Could AGFD reduce non-native fish through changes in fish regulation?

Can the duration of the flood be limited based on real time tracking of sediment transport so we could propose 2-5 days and (tier? time?) truncate based on real data regarding sediment transport and beach building?

Can there be more analysis to fine tune January – March hypothesis regarding stage-relationships and timing with respect to (stability?) of spawns and maximize reduction in success of Redds.

Should the BHBF peaks be higher in stage?

- Would want to test this but hydrology isn't there.
- <u>But</u> value in repeating magnitude and only changing duration.

Hypotheses tested in this program have not been borne out, lots of people will be watching so let's do it carefully.

How much water will bypass the power plant?

Recessional planning above power-plant capacity is a good idea.

Expected pain to different stakeholders and efforts to minimize without compromising the integrity of the experiment.

Can we predict ratio of storage-to-loss from a BHBF?

Is there a optimum BHBF level that yields maximum storage with limited export?

- 1. Request that GCMRC revise the proposed experimental flows in Figures 2 & 3 to test hypothesis about conserving native fish and sediment.
- 2. Request that BOR present the proposed monthly volumes to the SOI for consideration and incorporation into the AOP.
- 3. Hold a TWG meeting prior to the next AMWG to review the revisions and response to comments.
- 4. Present the proposed experiments to AMWG at their next meeting.

Is it the fluctuating flows that are intended to reduce non-native fish?

Will this reduce non-native fish above and below Lees Ferry equally?

More at Lees Ferry?

Given that the Lees Ferry population is dropping, are the fluctuating flows needed?

- Guides seeing a 40% decrease in last 6-18 months of catch rates.
- Provisional field observations downstream show no equivalent decrease.

What are the RPA flows in the AMWG motion?

2002 evaluate ROD as a baseline condition.

What is the potential of confusing impact of Fall low steady flows vs. fluctuating flows on native fish?

Will 1 year of experimentation allow you to see an effect on native vs. non-native fish interactions?

Prefer 2 to 3.

Are these hydrographs consistent with basin hydrology?

Yes.

When we're talking about non-natives, are we only talking about trout?

Yes

Would Figure 3 continue without a BHBF if there is no sediment input?

Is this a long-term experiment or a short-term experiment?

Responsible to AMWG within context of large-experimental program that responds to hydrology and Law of the River.

Are we applying too many treatments to measure this effect on the fish community?

What is the purpose of the 5,000 cfs low flow?

Are there different ways you could disrupt the spawning than what you've shown?

Is the trigger for a BHBF the same if the sediment inputs are in the Fall as compared to January?

Will HBC really be less vulnerable to fluctuating flows in the January – April timeframe?

Implicit in ROD flows are if you dropped flows below 10,000 in September, you'd violate the Law of the River.

AOP Flows in July and August have to be met.

Can't go to September flows to violate yearly deliveries.

Where are we in the NEPA process for any experimental flow, especially with respect to KAS?

Could trigger for BHBF be a series of smaller events as compared to a threshold?

Can be looked at

Why not test a BHBF in the Fall?

• Low flows are also outside Law of the River but we're being asked to consider those?

## **PURPOSE**

2° benefit → improve Lees Ferry Trout Fishery

Benefit HBC.

## **LOGIC**

Disadvantaging non-native fish may not be part of the RPAs and therefore shouldn't be an objective.

Accept logic about non-native reduction.

Respect concern for accomplishing the goals of the RPA, not how.

If predation/competition is reduced by cold temperature is a restriction, may not get intended effect.

May be mainstem warming in Fall that helps native fish if they're kicked out in Fall.

Explain fluctuating flows following BHBF.

Why do low flows vs. Fall HMF?

#### ADDITIONAL ANALYSIS

### Sediment

- Cost of HMF vs. low flows in terms of sediment export.
- Cost of waiting until January on loss of sediment inputs.

- Economic impact on power releases of such a test.
- Difficulty of storing sediment in July September period given power demands.
- Consider flows being proposed vs. monthly volumes and economic costs

# March/April/May

- Slide fluctuating flows to later in the year.
- Communications once a recommendation is made.
- Publicity around BHBF has an impact on the Spring business.
- Where are we on permitting?
- What are effects on aquatic food base?
- What are impacts on vegetation of fines deposited?
- Can we evaluate impacts of ramping rates, especially downramping?

# **PROCESS**